July 7, 1994
15621 SE 26th Street
Bellevue, WA 98008

Dear Friends:

The postal service had a bit of difficulty with Keyletter #8. They mangled at least two of them to the point that only the cover sheet was delivered! If you are missing your copy, please let me know.

If I haven't heard from you in a while and/or haven't received a donation for expenses, this will be your last issue. The costs of production are getting to the point that I can no longer provide "complimentary" copies. Many thanks to those of you who have sent donations.

A new correspondent, Dan Howard, KA7FIP, is on the list. Dan visited in March to look at my collection. He later sent copies of several old ads, a number of which appear in this issue. The Speed-X ads were particularly appreciated, even if they add yet another mystery - - when were they at the "30 9th Street" address? Please note the "goose neck" on the bug in this ad -most unusual and highly identifiable. This should help date John Elwood's bug that was on the front cover of the October, 1993 issue of the Vail Correspondent. Dan is interested in vintage radios, and is starting a newsletter on insulators and arresters. If you have any ads he would appreciate copies.

Speaking of Speed-X, we have long speculated that the mysterious bugs with no markings were early Speed-X keys. In June I visited the Tenino [Washington] depot museum and found a well-made bug with "Speed-X" on the thumb piece. It had no other markings. The paddles are usually the first thing to go on bugs, and these were not particularly substantial. It makes sense that it would be easier and cheaper to engrave a brand name into the plastic paddles than it would be to make a label. I took photos of this key and will use it to identify similarities in some of my unmarked keys. I'll publish the results in a future Keyletter.

VE3QQ KEYS. I have been corresponding with Al Jackson, VE3QQ, for several months. Al was a regular contributor to CQ magazine in the 60's, 70's, and 80's. He designed several unusual and innovative keys, and was a pioneer in keying design.

Mr. Jackson was born May 25, 1918 at Whitby, Ontario. His first entry into the radio world was at the age of eleven in 1929 with the construction of a crystal set using an empty cardboard salt container wound with #24 silk covered wire plus a fixed crystal and earphones. One thing led to another as he progressed through building and rebuilding tube sets, eventually leading to the assembly of a simple short-wave ham-band receiver.

He first went on the air on September 13, 1935 at Whitby, Ontario with his initials as his call sign: VE3AHJ. He was pleasantly surprised when this call had arrived from the appropriate government department with no special request on his part.

He took his Commercial Radio Operator's course at Radio College of Canada in Toronto in 1940, and obtained a 2nd Class Certificate of Proficiency [2 WPM] from the Canadian Department of Transport. This course included instruction in basic radio and electrical theory with some lab experience on the old radio equipment still in use on ships of that day.

He became an operator/technician under the wartime British Commonwealth Air Training Plan at the London, Ontario city airport where he gained experience on the aircraft and ground station equipment of the Canadian Air Force.

He enlisted in the Air Force as a Signals Officer, but did not go overseas. After the war, he was employed as an electronic technician, and briefly as an electrician, with various organizations, including the National Research Council and the Defence Research Board, both of Canada.

He lost his personalized call when he moved and became VE2PR in the Province of Quebec. He never operated under this call, and when he returned to Ontario a year later, VE3AHJ had been reissued. He became VE3QQ in 1951.

Mr. Jackson retired from the Defence Research Board in 1969 and since then has "kept his hand in" installing and operating audio video public address and recording systems in churches. His first keying article appeared in the February, 1964 issue of CQ magazine. He was a prolific writer and wrote the following keying related articles:

-The Can-Key. CQ, February, 1964. The Can-Key was a miniaturized keyer lever for electronic keys. It incorporated separate dot and dash levers The case was made of a round canned meat tin 2 5/8" in diameter. The paddles ["levers" in his article] were fabricated out of soft aluminum. The base was cast out of scrap solder or lead, using a meat-tin for a mould.

-The Touch Key. CQ, November, 1964. The Touch-Key was similar in appearance to the Can-Key, but had transistorized circuitry to control a conventional electronic keyer. It had no moving parts and used two capacity operated relay circuits to key.

-Touch Key additions. February, 1965

-The Touch-A-Matic Key. CQ, Part 1, July, 1966 Part 2, August, 1966. The Touch-A-Matic key was a fully transistorized electronic keyer that could be operated with the Touch-Key, the Can-Key, or any other dual paddle key. It was also constructed of food tins and sported speed control, touch control, self completing dots and dashes, and an internal speaker and long-dash operation. It measured 3 3/8" in diameter by 3 1/2" high. It covered a speed range from 15 to 35 WPM.

-The Glo-Key. CQ, May, 1967. The Glo-Key was Jackson's ultimate key! Not only did it have no moving parts, it did not even require physical contact to operate! Keying was done by interrupting a light beam. It was small in size, measuring 2 1/8" by 2 1/4' high. The light beam was provided by two pilot lamps shining on miniature photo cells. True to form, food tins [from a pizza package] were used to fabricate the case an cast the base weight.

-Optimize your Touch-Key. CQ, March, 1967.

-Touch Control for the Curtis Chip Keyers. CQ, July, 1977.

-The Q-Key. CQ, March, 1967.

-A plug-in supply for the Curtis Kit Keyers. CQ, June, 1978.

-Aku-Touch your Accu-Keyer. CQ, April, 1980.

-How to Improve the Vibroplex EK-1 Brass Racer. CQ, October, 1984.

-The "Further Step": Touch Control for Your Vibroplex EK-1. CQ, January 1986.

-How To Build an Instant In-Line Inverter for your Negative Electronic Key. CQ, July, 1987.

Other articles that he published were:

-Dimple Those Shields, CQ, August, 1965. [A tool to simplify shield making]

-A Sheet Metal Drill for Thin Materials, CQ, February, 1970, [altered point for greater accuracy]

-A Simple Open Wire Protector. CQ, April, 1980

-Touch-talk that Microphone Switch, CQ, June, 1980. [Silent, fewer drop-outs]

-How to Build your Own Coaxial Relay. CQ, August, 1987. [Upgrading a common relay]

Jackson got into keying out of curiosity and a desire for a key with a light touch. His keys reflect this. After developing the Can-Key he decided to design a key with simpler mechanical construction and decided to do the keying electronically, hence the Touch-Key.

When he discovered that the Curtis company had put circuitry similar to the Touch-a-matic plus character completing memories on a solid-state chip he experimented with it and wrote the 7/77, 4/78, and 6/78 CQ articles.

His keys never went into production. He built a total of six Can-Keys for friends and a Touch-a-Matic for a club station. A second Q-Key was built for a friend, and at least two others were built with his assistance.

The prototype Touch-Key, Touch-A-Matic, and Glo-Key were donated to the N7CFO collection by Mr. Jackson. All are in perfect working order and are contained in fitted cases. Their appearance and finish are top quality, and none would suspect the humble origins of the components - - meat tins!

How do they work? In a word, perfectly. They are guaranteed to cause looks of incredulity because of their design, fine finish, and smooth operation.

Dave Pennes:

1. I have a recent vintage Bunnell sideswiper [looks like 1950's] Were they made as novelties? How scarce are they compared to "originals"?

2. I need a source for the brass rivets used to attach Vibroplex nameplates to old bugs - they are 1/16" X 3/4". Any ideas?

The only information that I have on the "new" double speed keys is the attached Harrison ad out of the November, 1949 issue of QST. Does any one else have any ideas? As for the rivets, I don't have any information. By the way, Dave has moved, and his new address is: 4607-C Santa Cruz Drive, Indianapolis, IN 46278-5354.

Tom French wrote to tell me that the buzzer that I have on my McElroy straight key was knows as a "hummer" and that they are quite scarce.

David Holley:

How common was the use of carriage striping on Japanned based Vibroplex Bugs of the pre-1940 era? Some of my keys have striping and others do not, with no relation to the serial number.

I have no evidence to back this up, but I have heard that Vibroplex painted their bugs by placing them on a block and pouring thick lacquer over them. The drip marks on the bottom of early Vibroplexes support this theory. I have also heard that the carriage trim was done freehand by using the edg of the base as a guide and doing quick swipes with a fine brush. The lacquer [paint??] in the old ones was very thick and remarkably durable, though the gold trim often wore off with use. I suggest that you carefully remove the binding posts, the damper, etc. Often you will find tiny traces of the carriage trim under them. I do not recall having seen one that had the Japanned base that did not have the carriage trim.

David also wrote to enquire about the gray metal label on a Vibroplex Original Standard, S/N 140,513. I checked Holley's book, and Bill states that the 1943 to 1945 Deluxe models were made with a gray base to save chrome during the war. I suspect that the same went for the labels.

N7CFO NEW ACQUISITIONS:

- **"Nacometer"** sold by the National Radio Institute. This is a spring motor paper tape machine similar to the Instructograph. It has a red leatherette case. The brochure with it is copyrighted in 1937 and the spring motor is made by the United Air Cleaner Co. of Chicago.

- **"Swallow"** bug made by Dentsu-Seiki of Japan. Strangely enough this is the first one that I have seen. The "Swallow" bugs are well known, but I do not have not any information on them. Mine is a model BK 50, and is similar in some aspects to the so called "coffin bugs", though it does not have the transparent plastic cover. I have several variations of the coffin bugs, and copies of ads for them when they were sold by Lafayette, Radio Shack, and Jelectro. Some of them have small suction cups on each corner, and others have a solid foot that is a rectangular suction cup.

- **26003A "Navy key"** marked:

KEY, TRANSMITTING, FLAMEPROOF
PART No.213265-3
SEG ELECTRONICS CO., INC. CONTRACT No. N383-76202A
US

The navy knob is marked "do not close over 2 min.". This key is nearly identical to the Telephonics, Bunnell, and Bendix keys, though the finish is a flat black rather than crackle. Does anyone have any information on this company?

- **Omnigraph #4** on a large wooden base with a key and buzzer. The base has a nice metal nameplate with the legend:

THE OMNIGRAPH AUTOMATIC
TRANSMITTER
MF'D EXPRESSLY FOR
RADIO INSTITUTE OF AMERICA
NEW YORK, N.Y.

This is the first #4 that I have seen, and it is in excellent condition, other than some missing finish on the base. The buzzer was made by MESCO.

- Another recent acquisition is a small sealed key of unusual design. It is made of brown Bakelite, and is marked:

KEY TELEGRAPH
LIGHT WEIGHT
(AUST) NO 1.
TSE(W)9-2
D↑D

It has an "AWA" logo in a circle on the top. The key is about two inches long and I suspect that it is Canadian, British, or Australian.

- **Autronic** keyer. The enclosed factory brochure came with it.

Well, that is it for this time. I am working on articles on spark keys, early keyers and paddles, and Apex keys. If you have anything on these subjects, please pass them along.

73

Lynn, N7CFO

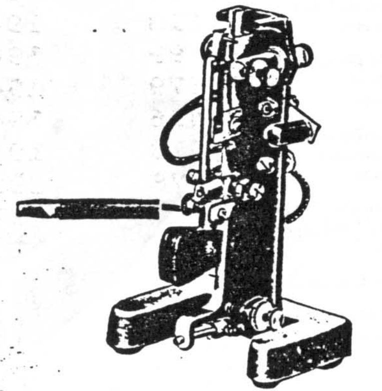
I found the following chart on the back of a business card from an antique mall. It gives the ending patent dates for each year, so you can use it to roughly date items with patent numbers on them.

1859	22,477	1898	596,467	1937	2,066,309
1860	26,642	1899	618,871	1938	2,104,004
1861	31,005	1900	640,167	1939	2,142,080
1862	34,045	1901	664,827	1940	2,185,170
1863	37,266	1902	690,385	1941	2,227,418
1864	41,047	1903	717,521	1942	2,268,540
1865	45,685	1904	748,567	1943	2,307,007
1866	51,784	1905	778,834	1944	2,338,081
1867	60,685	1906	808,618	1945	2,366,154
1868	72,959	1907	839,799	1946	2,391,856
1869	85,503	1908	875,679	1947	2,413,675
1870	98,460	1909	908,436	1948	2,433,824
1871	110,617	1910	945,010	1949	2,457,797
1872	122,304	1911	980,178	1950	2,492,944
1873	134,504	1912	1,013,095	1951	2,536,016
1874	146,120	1913	1,049,326	1952	2,580,379
1875	158,350	1914	1,083,267	1953	2,624,046
1876	171,641	1915	1,123,212	1954	2,664,562
1877	185,813	1916	1,166,419	1955	2,698,434
1878	198,733	1917	1,210,389	1956	2,728,913
1879	211,078	1918	1,251,458	1957	2,775,762
1880	223,210	1919	1,290,027	1958	2,818,567
1881	240,373	1920	1,329,352	1959	2,866,973
1882	254,836	1921	1,364,063	1960	2,919,443
1883	269,820	1922	1,401,948	1961	2,966,681
1884	291,016	1923	1,440,362	1962	3,015,103
1885	310,168	1924	1,478,996	1963	3,070,801
1886	353,494	1925	1,521,590	1964	3,116,487
1887	355,291	1926	1,568,040	1965	3,163,865
1888	375,720	1927	1,612,790	1966	3,226,729
1889	395,305	1928	1,654,521	1967	3,295,143
1890	418,665	1929	1,696,897	1968	3,360,800
1891	443,987	1930	1,742,181	1969	3,419,907
1892	466,315	1931	1,787,424	1970	3,487,470
1893	488,976	1932	1,839,190	1971	3,551,909
1894	511,744	1933	1,892,663	1972	3,631,539
1895	531,619	1934	1,941,449	1973	3,707,729
1896	552,502	1935	1,985,878	1974	3,781,914
1897	574,369	1936	2,026,516		

A VERTICAL TELEGRAPH SPEED KEY.

Herewith is shown a new vertical telegraph speed key. The vertical key combines in one stroke extreme simplicity, efficiency, light weight, (one and one-half pounds) and it produces a very superior quality of full, solid, clean-cut dots. In addition may be mentioned the fact that with this new instrument it is next to impossible to run dots and dashes together.

It represents an improved type of single contact instrument and it is so extremely simple that it reduces repairs, adjustments and replacements to a minimum. The key has a remarkably easy touch. Moreover it is unnecessary to change any adjustments about the machine except to slide the speed weight up or down when it is desired to send faster or slower or to adjust the tension springs so that the screw in or out—just a little at a time—until the dots appear to be solid and clear. Otherwise, there are no adjustments to be made.

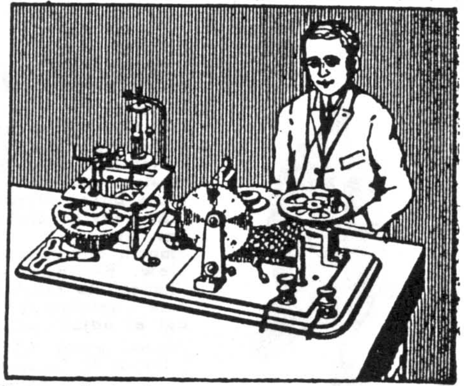


Something New in Speed Keys for Radio and Telegraph Operators. It Sets in a Vertical Position, Being Held Upright by a Substantial Base.

Electrical Experimenter
11/17
(KA7FIP)

October, 1915

LEARNING TELEGRAPHY



becomes simple when your instructor is the Omnigraph Automatic Transmitter. Combined with a standard key and sounder or Wireless Buzzer, it will send you telegraph messages at a slow speed, which can be increased at will to match the sending of an expert operator as you become more proficient. Adopted by U. S. Gov't. Made in 4 styles, from $2.50 up, all accurate. Circular free.

Omnigraph Mfg. Co., 39 L Cortlandt St., New York

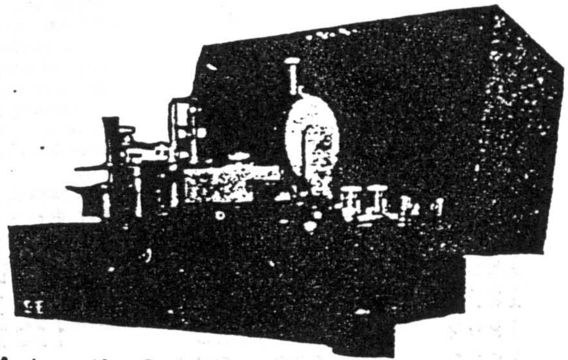
Electrical Experimenter
10/15
KA7FIP

U.S. RADIO INSPECTORS USE CODE MACHINE IN TESTING APPLICANTS.

All applicants for U. S. Government Radio Operator's License must pass a test in receiving messages in the telegraphic code, i.e., in the form of dots and dashes. The accompanying illustration shows a new complete automatic telegraphic code transmitter, known as the Omnigraph, complete with high-note buzzer and exciting batteries, which latter are contained in the base of the cabinet. The various discs, which are properly notched on their periferies to correspond with the dots and dashes of the different letters of the alphabet, are placed one above the other on a rotatable drum or plate, which is driven by a strong spring motor provided with a suitable governor, in order that the discs may be caused to rotate at any desired speed.

The toothed disc makes contact with a special light spring brush connected with the high-note buzzer circuit. Thus, as the discs slowly rotate, the buzzer circuit is made and broken in accordance with the long and short notches on the edges of the discs.

This instrument has been used for a number of years by the government officials in examining applicants for Radio Operator's License and has been found very satisfactory. The messages may be signaled with this apparatus at any speed from 12 words up to 30 words, or more, per minute, thus giving it a wide range of usefulness.



Automatic Code Apparatus Used by U. S. Radio Inspectors in Examining Applicants for Operator's License.

A large variety of code disc are available and the machine may be set up to give different code combinations as often as desired.

Electrical Experimenter
5/17
(KA7FIP)

Autronic

for perfect code

TRADE MARK REGISTERED IN U.S. PATENT OFFICE

Patents Pending

ELECTROPHYSICS CORP.
P. O. Box 1791
Newport Beach, California
Since 1929

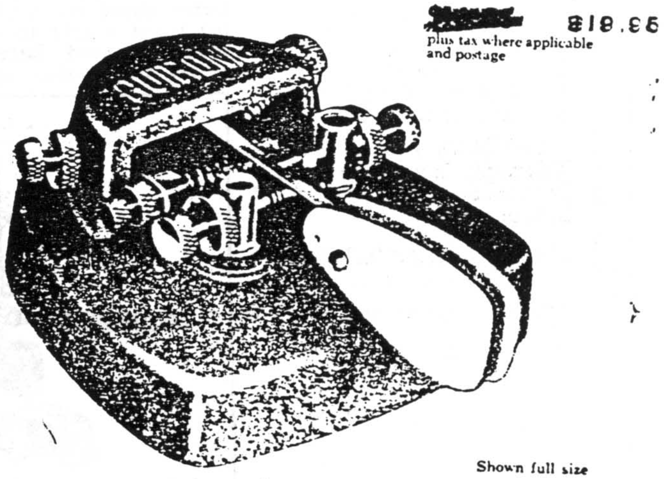
AUTRONIC–*the modern key for more than conventional performance*

- *Small size – Takes only a minimum of desk space.*
- *Quickly adjusted to provide the perfect "feel".*
- *Attractive finish base, with polished chrome lever and adjusting screws.*
- *Twin unbreakable plastic paddles for right- or left-hand operation.*
- *Over-size silver-alloy contacts provide positive contact and lifelong service.*
- *Engineered weight distribution prevents "walking" and gives positive stability.*
- *Precision machined, streamlined.*
- *Extensively used in commercial, military and amateur radio.*

the AUTRONIC *key*

[redacted] $18.95

plus tax where applicable and postage



Shown full size

(autronics factory Brochure)

Your Fist at its Best

Designed specifically for use with an electronic keyer, the AUTRONIC Key enhances your capacity for fast, clear, and smooth CW transmission.

A single lever and stirrup embodies low moment of inertia, sturdiness, and proper damping for velvet touch operation.

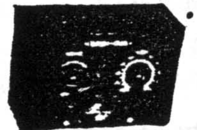
Contact bounce has been eliminated, regardless of lever movement or keying pressure. This key has been built for a lifetime of hard professional operation.

Compact, streamlined, functional–the AUTRONIC Key does a big job in a small space. It will not "walk", even when used aboard a small boat in heavy seas. This key is normally used with an electronic keyer for high speed fully-automatic operation. It can be used semi-automatic or completely manual (side-key or sideswiper).

ONE YEAR WARRANTY: Electrophysics Corporation warrants each key and keyer manufactured by them to be free from defects in material and workmanship. Our liability under this warranty is limited to servicing, adjusting, and/or replacing any defective parts in any instrument returned to the factory for this purpose with transportation charges paid, to and from factory. We reserve the right to change prices or specifications without notice and without incurring any obligation on equipment sold prior to such change. This warranty is void if repairs or alterations made by anyone other than factory personnel.

Time payments may be arranged if desired

"DASH-BUG" by ELECTRONIC WORKSHOP



- Here's your key to faultless sending. Electronic timing—self-completing dots and dashes! Single control adjusts transmission speed and automatcially maintains perfect relation of dots, dashes and spaces! Nearest thing to tape transmission on the air!

Compact grey cabinet 4" x 7" 4½" deep. Complete with tubes, for operation on 110 olts AC. Works with any two circuit key such as your bug", special sideswiper, or similar key.

Dash Bug Electronic Keyer **$24.95**

IN NEW YORK, ONLY HARRISON HAS IT!!!

QST 11/49
(Harrison ad)

THE SIDESWIPER

Harrison brings back the Old Timer's favorite—the Bunnell Speed Sideswiper Key! Improved, and better than ever—adjustable spring tension, moveable contacts, solid brass base, attractive brushed finish, heavily nickel plated lever bar, etc.

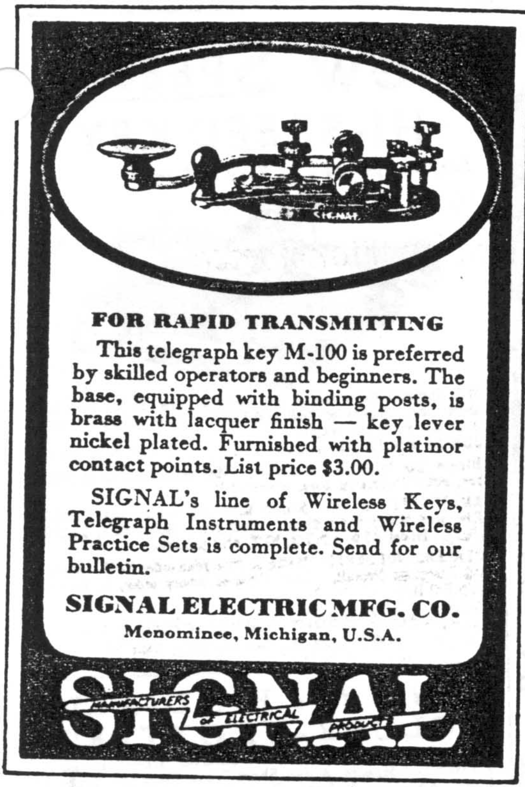
Smooth effortless sending – fast or slow. Beginner's delight – no "knack" to handling. Lasts a lifetime – nothing to wear out or get out of adjustment.

Almost every CW man trying it, bought it! Get yours today! $9.00

Special two-circuit Sideswiper for Electronic Keyers. Isolated contacts, no shorting switch. $11.70

ONLY HARRISON HAS IT! — ORDER NOW!

QST 11/49



FOR RAPID TRANSMITTING

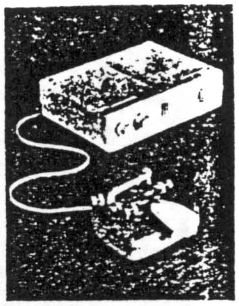
This telegraph key M-100 is preferred by skilled operators and beginners. The base, equipped with binding posts, is brass with lacquer finish — key lever nickel plated. Furnished with platinor contact points. List price $3.00.

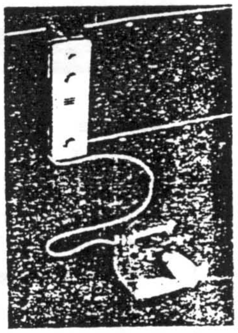
SIGNAL's line of Wireless Keys, Telegraph Instruments and Wireless Practice Sets is complete. Send for our bulletin.

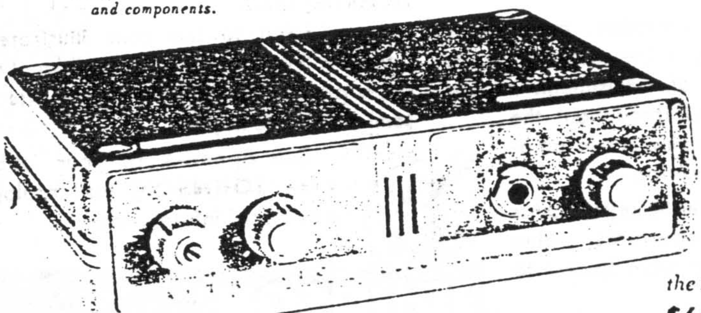
SIGNAL ELECTRIC MFG. CO.
Menominee, Michigan, U.S.A.

QST 12/36

- *[illegible], digital circuitry. No R.C. Control circuits.*
- *Permissible for F.C.C. tests.*
- *Use vertically or horizontally.*
- *Light weight – only 2 pounds.*
- *Unbreakable gray plastic case is only 7" x 5" x 2".*
- *Fully transistorized with sturdy etched copper circuitry: no tubes, no relays, no heat build-up.*
- *Self-monitoring oscillator and speaker. Can be used for code practice work too.*
- *Fused input circuit, for safety.*
- *Superior workmanship and components.*
- *Head-phone jack.*
- *All necessary cables included.*
- *Weight control automatically sets precise length of dots, dashes and spaces, at all speeds.*
- *Dual control is instantly adjustable from 8 to 35, and 30 to 60 wpm.*
- *Mode switch selects the type of operation. Fully automatic for both dots and dashes for International radio code, or semi-automatic for automatic dots, and manual dashes, for Morse telegraph code.*
- *Volume control for speaker and phone jack.*







Shown about ¾ size.

the AUTRONIC *electronic keyer*
$69.50 plus tax where applicable and postage

(autronics factory Brochure)

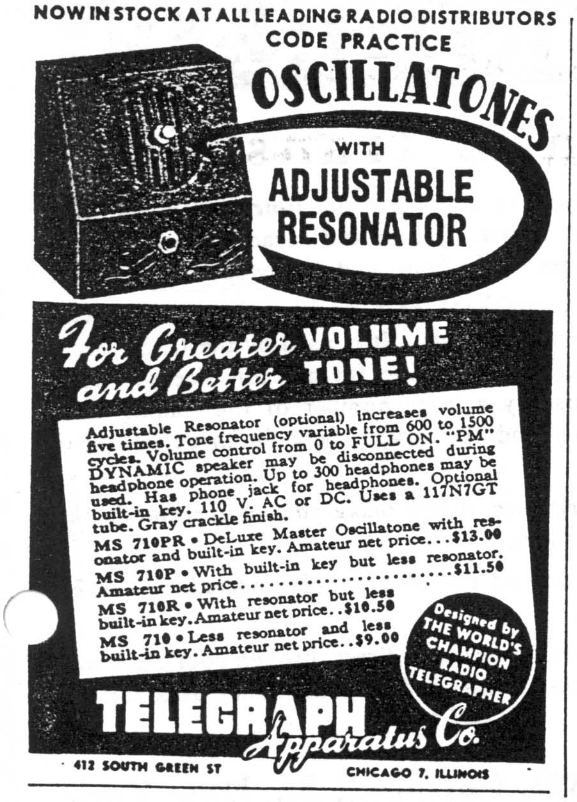
All transistorized electronic keyer eliminates relays and tubes for lasting performance

The AUTRONIC Keyer gives to any operator a new concept of high-speed, easily readable CW. The AUTRONIC proportions each dash, dot and space, precisely at all speeds. Each signal with its following space is self completing and cannot be run together, regardless of faulty timing by the operator. It eliminates split dots, dashes, and spaces. Digital circuitry, incorporating proper time constants, gives precise square-top keying, and minimizes key clicks, chirps and TVI. Sturdy etched-copper circuit board, 10 transitors, 10 diodes and other top quality components, make the AUTRONIC superior in performance and reliability. Built for continuous commercial service.

The basic circuit utilizes two precisely interlocked multivibrators (a free running multivibrator for forming the dots and spaces, and a bistable multivibrator for forming the dashes), to actuate a power switching transistor (in place of the conventional relay) to key the transmitter.

The built-in power supply requires less than 3 watts, 75 to 130 volts, 60 cycles. This Keyer may be operated from an electric shaver supply for mobile use.

The standard Keyer is designed for use with transmitters having conventional grid block keying circuits which break not more than 105 volts and 80 milliamperes. Higher ranges are available on special order.



NOW IN STOCK AT ALL LEADING RADIO DISTRIBUTORS
CODE PRACTICE
OSCILLATONES
WITH
ADJUSTABLE RESONATOR

For Greater VOLUME and Better TONE!

Adjustable Resonator (optional) increases volume five times. Tone frequency variable from 600 to 1500 cycles. Volume control from 0 to FULL ON. "PM" DYNAMIC speaker may be disconnected during headphone operation. Up to 300 headphones may be used. Has phone jack for headphones. Optional built-in key. 110 V. AC or DC. Uses a 117N7GT tube. Gray crackle finish.

MS 710PR • DeLuxe Master Oscillatone with resonator and built-in key. Amateur net price...**$13.00**

MS 710P • With built-in key but less resonator. Amateur net price..........**$11.50**

MS 710R • With resonator but less built-in key. Amateur net price..**$10.50**

MS 710 • Less resonator and less built-in key. Amateur net price..**$9.00**

TELEGRAPH Apparatus Co.
412 SOUTH GREEN ST   CHICAGO 7, ILLINOIS

QST 7/46 ←

NEW WAY TO LEARN CODE

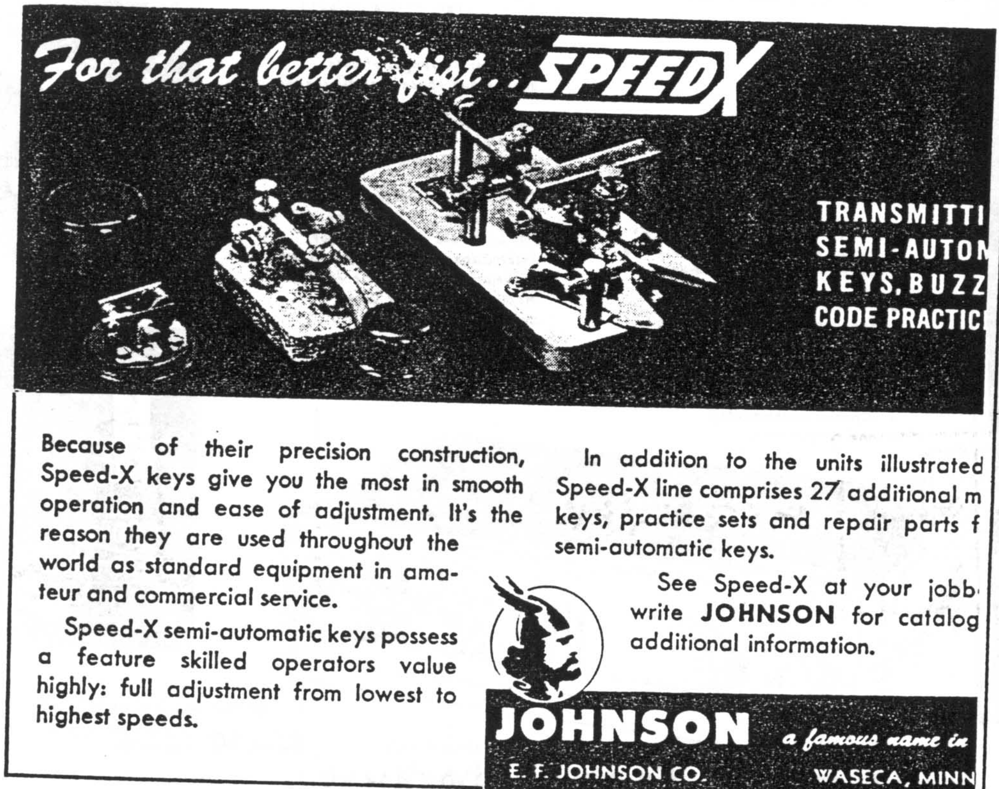
E-Z-CODE
JUNIOR

uses electric pencil and printed-wiring. Simply draw pencil down lettered slot and buzzer sounds off dots and dashes. Operates on single flashlight battery. Available now at your local Aerovox Parts Distributor. Write for free booklet telling all about code and name of your nearest distributor.

$3.98

AEROVOX CORPORATION • New Bedford, Mass.

CQ 3/58



Because of their precision construction, Speed-X keys give you the most in smooth operation and ease of adjustment. It's the reason they are used throughout the world as standard equipment in amateur and commercial service.

Speed-X semi-automatic keys possess a feature skilled operators value highly: full adjustment from lowest to highest speeds.

In addition to the units illustrated Speed-X line comprises 27 additional m keys, practice sets and repair parts f semi-automatic keys.

See Speed-X at your jobb write **JOHNSON** for catalog additional information.

JOHNSON *a famous name in*

E. F. JOHNSON CO. WASECA, MINN

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Radio
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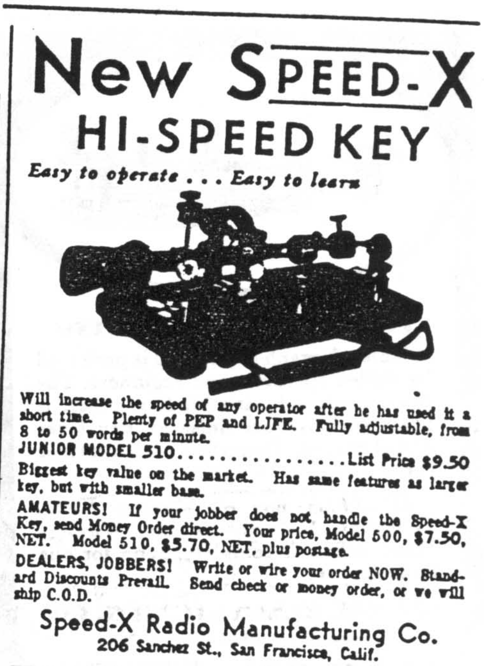

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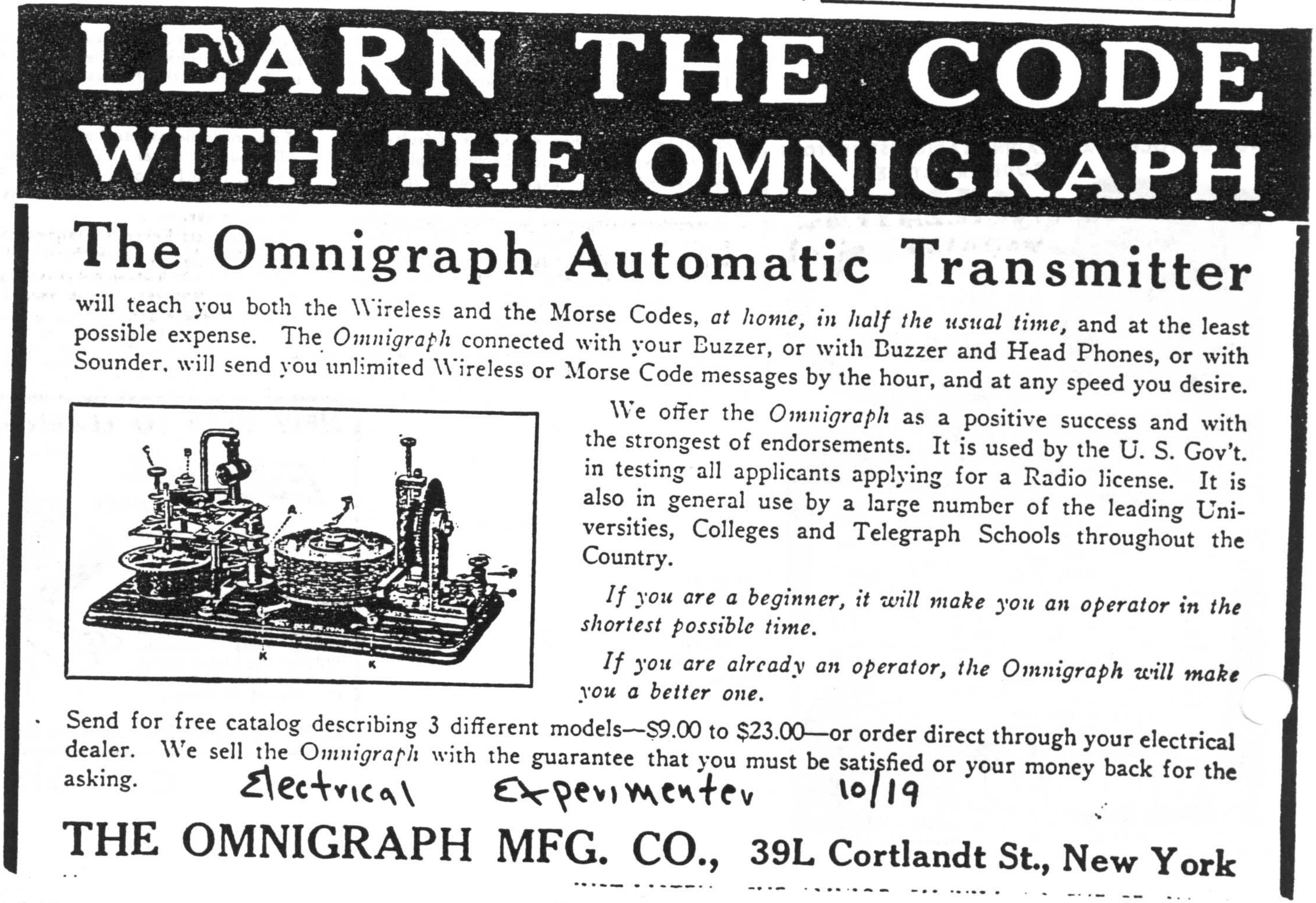

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The Omnigraph Automatic Transmitter

will teach you both the Wireless and the Morse Codes, *at home, in half the usual time,* and at the least possible expense. The *Omnigraph* connected with your Buzzer, or with Buzzer and Head Phones, or with Sounder, will send you unlimited Wireless or Morse Code messages by the hour, and at any speed you desire.

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Send for free catalog describing 3 different models—$9.00 to $23.00—or order direct through your electrical dealer. We sell the *Omnigraph* with the guarantee that you must be satisfied or your money back for the asking.

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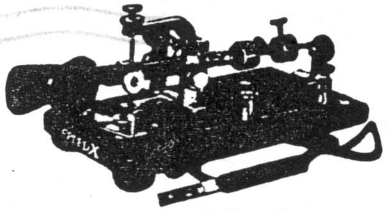

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SPEED-X

A complete line—designed for the amateur.
4 HI-Speed, semi-automatic models, $9.50 to $12.50 list
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See them at your distributors, or send for literature.

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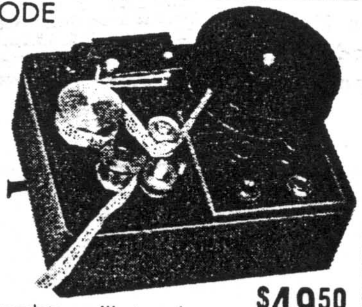

Literature Available

Model A complete as illustrated. $49.50
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More movements required to send on a Morse key than on a MECOGRAPH. Good senders get best salaries. Best senders use the MECOGRAPH. Write for new circular.

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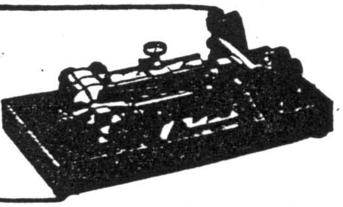

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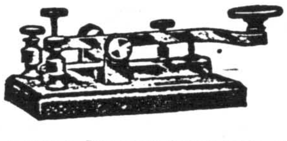
For our Mutual Advantage mention Popular Electricity when writing to Advertisers.

Popular Electricity 5/1910 ↑

The Electro-Set Special Wireless Key



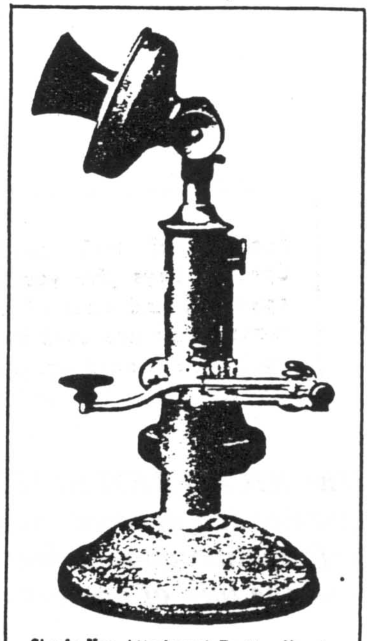
You'll literally fall in love with the action of this key and its sturdy appearance will delight your eyes. The metal parts of this instrument are made entirely of brass. It is mounted on a genuine polished marble base. It is especially strong in construction. The contacts are of hardened coin silver of No. 4 size, easily removable for renewal. All metal parts are lacquered and polished. This key is built for stations from ¼ to 1 K. W. capacity and should last a lifetime with proper use. Size over all, 3 x 6 x 2 inches. Our extremely low price for this key is.......... $3.00
Shipping weight 3 pounds.

Electrical Experimenter
3/16
Electro-Set Co.
1874 East 6th St.
Cleveland, Ohio

TELEGRAPHING OVER TELEPHONE LINES WITH SIMPLE DEVICE NOW POSSIBLE.

A patent has just been allowed to Paul P. Banholzer, of Philadelphia, Pa., on a mechanical telegraph instrument for telegraphing by wireless telephone and over telephone circuits. It is claimed that this instrument will further introduce the dot and dash system of telegraphy, which can be understood by any wire operator. Furthermore, the sound it produces is unmistakable and carries much farther than the voice.

For telegraphing over telephone lines the modified key here illustrated is clamped to the post of a desk telephone and when the key is manipulated the Morse code characters are received at the distant end of the circuit clearly and distinctly. The dots and dashes on the key are transmitted mechanically to the diaphragm of the microphone through the metal stand parts and are transmitted over the line, as are voice currents, and reconverted into sound waves in the receiver at the other end. A desk telephone, with this device attached, can be "jacked" into any telephone circuit and used as an extension telephone. In this way the hinged fastener can be used anywhere without having to change the fastener or use bushings.



Simple Key Attachment Enables You to Telegraph Over Any Telephone Line

This instrument is stated to be an especially useful device in connection with telephone train dispatching, since the telegraph system could be used when telephone conversation is not understood or is otherwise difficult owing to bad weather effects on the line, etc.

It is claimed that this key could be used with advantage in branch telegraph offices where there is but one telegraph wire. Such offices, as a rule, have a telephone, and this circuit could be used to forward their messages without having to wait their turn on the telegraph circuit.

Quite a number of these instruments are in successful operation in the South and West, and reports indicate that they now form a part of the permanent equipment of those lines.

There can be no induction on parallel lines, as no additional battery is required to operate the instrument. What has been said in regard to the wire telephone system also applies to the wireless telephone system.

Electrical Experiment
3/16

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